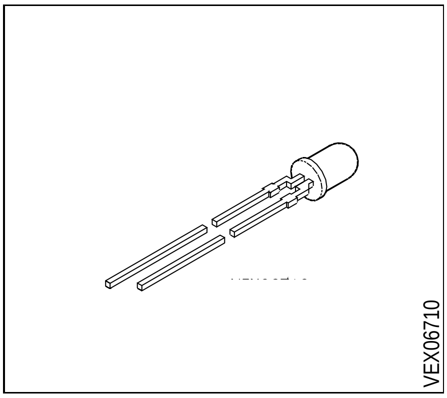
SIEMENS

3 mm (T1 $^3/_4$) LED, Diffused Wide-Angle LED

LS 3380, LY 3380, LG 3380



Besondere Merkmale

- eingefärbtes, diffuses Gehäuse
- als optischer Indikator einsetzbar
- Lötspieße mit Aufsetzebene
- gegurtet lieferbar
- Störimpulsfest nach DIN 40839

Features

- colored, diffused package
- for use as optical indicator
- solder leads with stand-off
- available taped on reel
- load dump resistant acc. to DIN 40839

Typ Type	Emissionsfarbe Color of Emission	Gehäusefarbe Color of Package	Lichtstärke Luminous Intensity I_F = 10 mA I_V (mcd)	Bestellnummer Ordering Code
LS 3380-GK LS 3380-H LS 3380-J LS 3380-K LS 3380-HL	super-red	red diffused	1.6 … 12.5 2.5 … 5.0 4.0 … 8.0 6.3 … 12.5 2.5 … 20.0	Q62703-Q2629 Q62703-Q1726 Q62703-Q1349 Q62703-Q3824 Q62703-Q2630
LY 3380-GK LY 3380-H LY 3380-J LY 3380-K LY 3380-HL	yellow	yellow diffused	1.6 … 12.5 2.5 … 5.0 4.0 … 8.0 6.3 … 12.5 2.5 … 20.0	Q62703-Q1352 Q62703-Q1353 Q62703-Q1354 Q62703-Q2317 Q62703-Q1355
LG 3380-GK LG 3380-J LG 3380-K LG 3380-JL	green	green diffused	1.6 … 12.5 4.0 … 8.0 6.3 … 12.5 4.0 … 20.0	Q62703-Q1356 Q62703-Q2318 Q62703-Q2631 Q62703-Q3910

Streuung der Lichtstärke in einer Verpackungseinheit $I_{V\,max} / I_{V\,min} \leq 2.0$.
Luminous intensity ratio in one packaging unit $I_{V\,max} / I_{V\,min} \leq 2.0$.

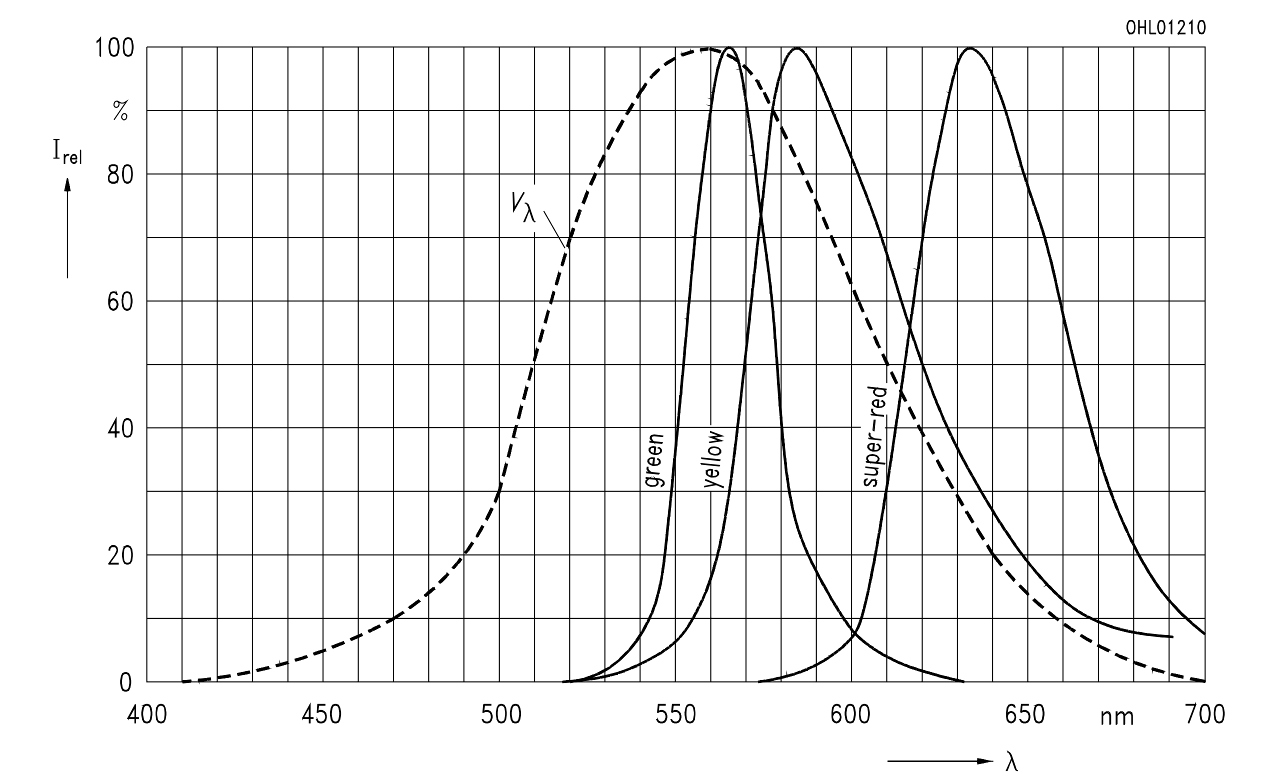
Grenzwerte
Maximum Ratings

Bezeichnung **Parameter**	**Symbol** **Symbol**	**Werte** **Values**	**Einheit** **Unit**
Betriebstemperatur Operating temperature range	T_{op}	– 55 … + 100	°C
Lagertemperatur Storage temperature range	T_{stg}	– 55 … + 100	°C
Sperrschichttemperatur Junction temperature	T_j	+ 100	°C
Durchlaßstrom Forward current	I_F	40	mA
Stoßstrom Surge current $t \leq 10$ µs, D = 0.005	I_{FM}	0.5	A
Sperrspannung Reverse voltage	V_R	5	V
Verlustleistung Power dissipation $T_A \leq 25$ °C	P_{tot}	140	mW
Wärmewiderstand Thermal resistance Sperrschicht / Luft Junction / air	$R_{th\ JA}$	400	K/W

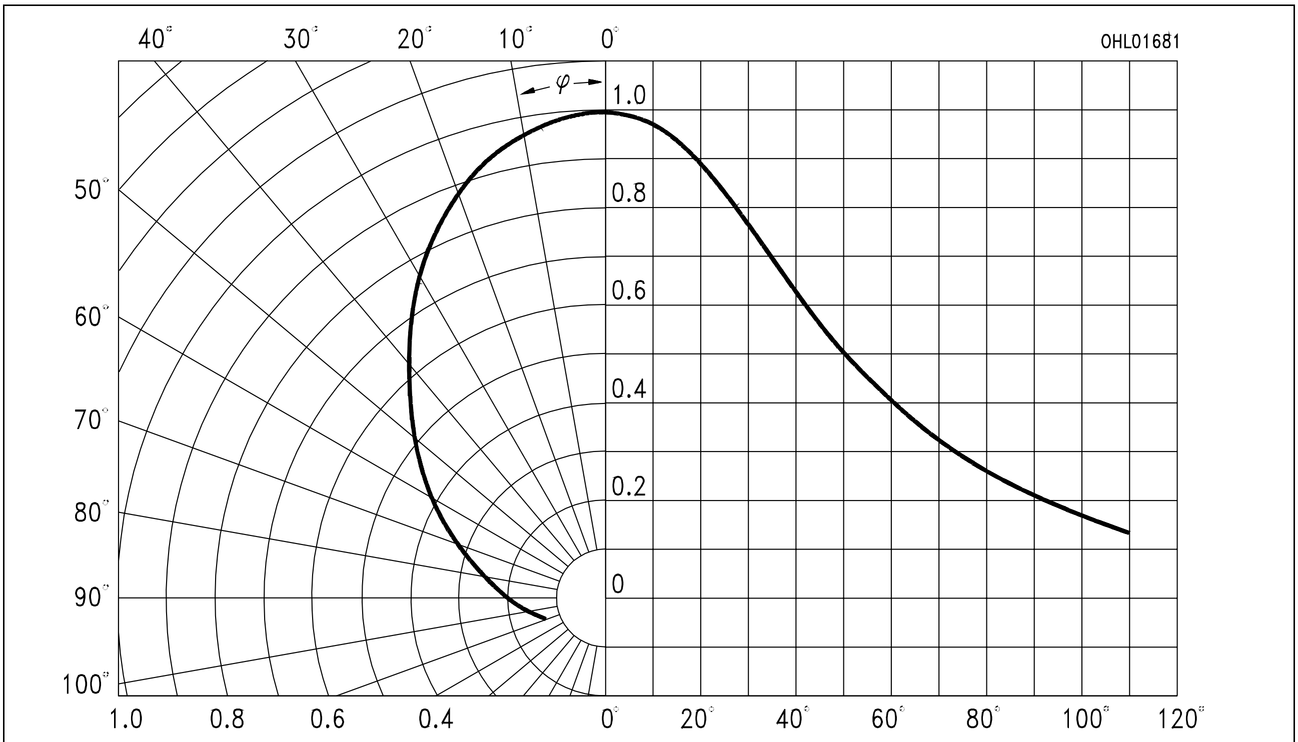
Kennwerte (T_A = 25 °C)
Characteristics

Bezeichnung **Parameter**	**Symbol** **Symbol**	**Werte** **Values**			**Einheit** **Unit**
		LS	**LY**	**LG**	
Wellenlänge des emittierten Lichtes(typ.) Wavelength at peak emission(typ.) I_F = 20 mA	λ_{peak}	635	586	565	nm
Dominantwellenlänge(typ.) Dominant wavelength(typ.) I_F = 20 mA	λ_{dom}	628	590	570	nm
Spektrale Bandbreite bei 50 % $I_{rel\,max}$(typ.) Spectral bandwidth at 50 % $I_{rel\,max}$(typ.) I_F = 20 mA	$\Delta\lambda$	45	45	25	nm
Abstrahlwinkel bei 50 % I_V (Vollwinkel) Viewing angle at 50 % I_V	2φ	100	100	100	deg.
Durchlaßspannung(typ.) Forward voltage(max.) I_F = 10 mA	V_F V_F	2.0 2.6	2.0 2.6	2.0 2.6	V V
Sperrstrom(typ.) Reverse current(max.) V_R = 5 V	I_R I_R	0.01 10	0.01 10	0.01 10	µA µA
Kapazität(typ.) Capacitance V_R = 0 V, f = 1 MHz	C_0	12	10	15	pF
Schaltzeiten: Switching times: I_V from 10 % to 90 %(typ.) I_V from 90 % to 10 %(typ.) I_F = 100 mA, t_P = 10 µs, R_L = 50 Ω	 t_r t_f	 300 150	 300 150	 450 200	 ns ns

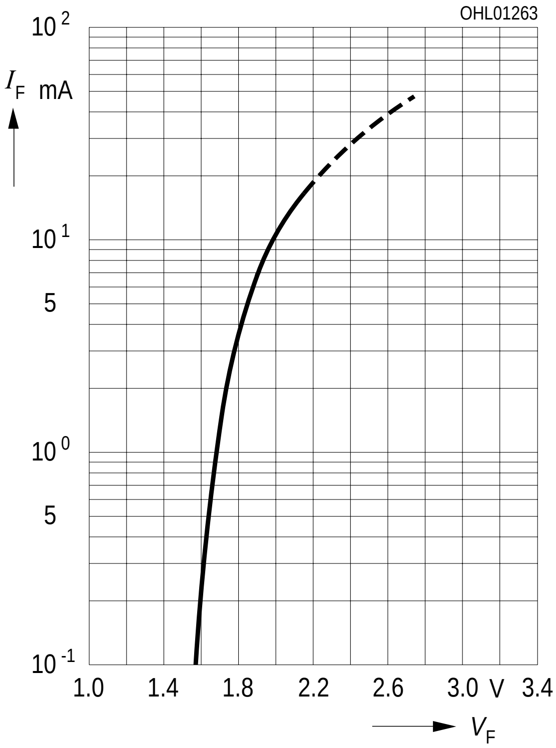
Relative spektrale Emission $I_{rel} = f(\lambda)$, T_A = 25 °C, I_F = 20 mA
Relative spectral emission
V (λ) = spektrale Augenempfindlichkeit
Standard eye response curve



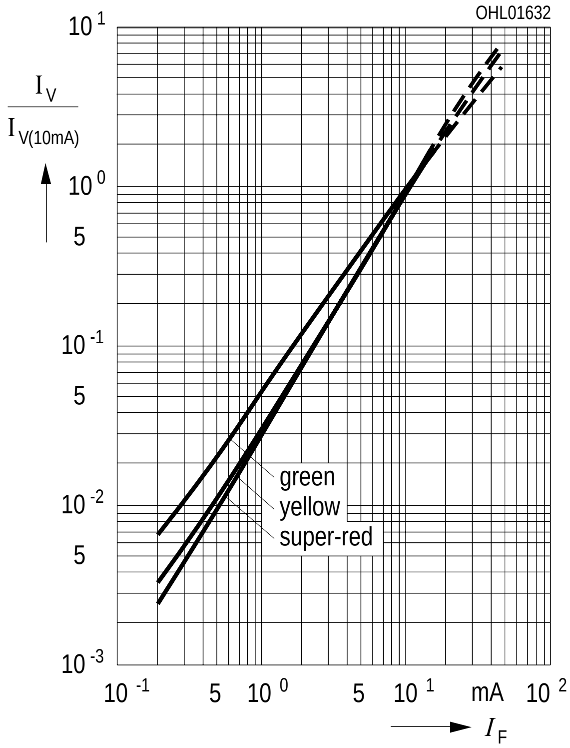
Abstrahlcharakteristik $I_{rel} = f(\varphi)$
Radiation characteristic



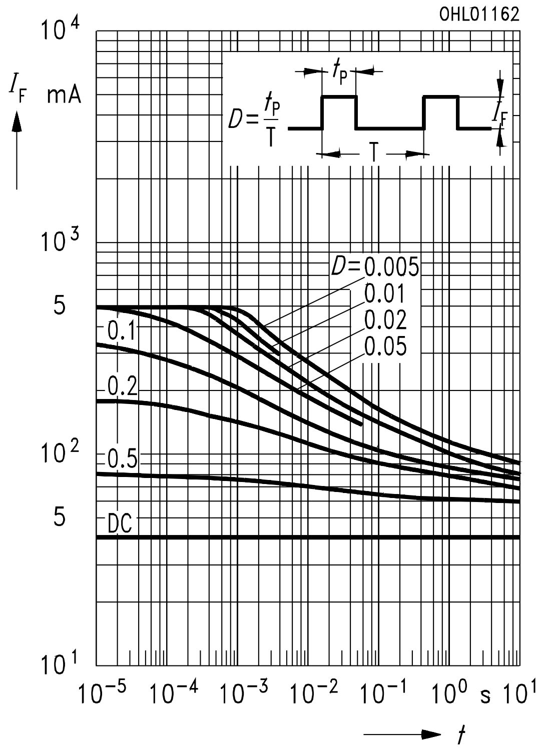
Durchlaßstrom $I_F = f(V_F)$
Forward current
T_A = 25 °C



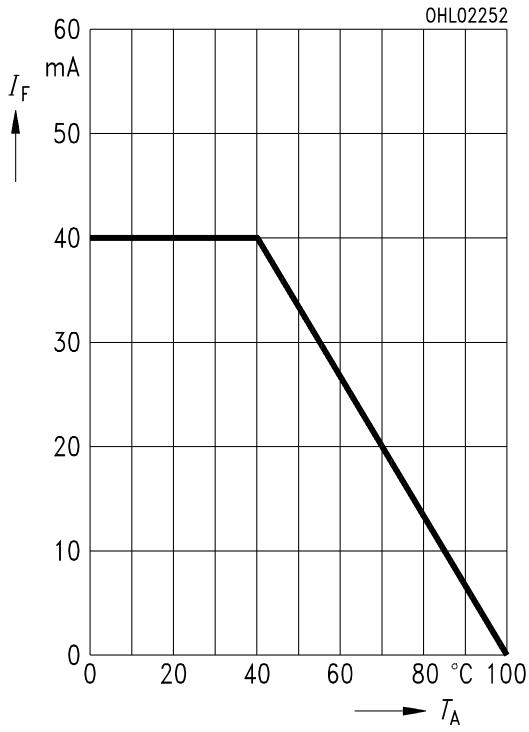
Relative Lichtstärke $I_V/I_{V(10\,mA)} = f(I_F)$
Relative luminous intensity
T_A = 25 °C



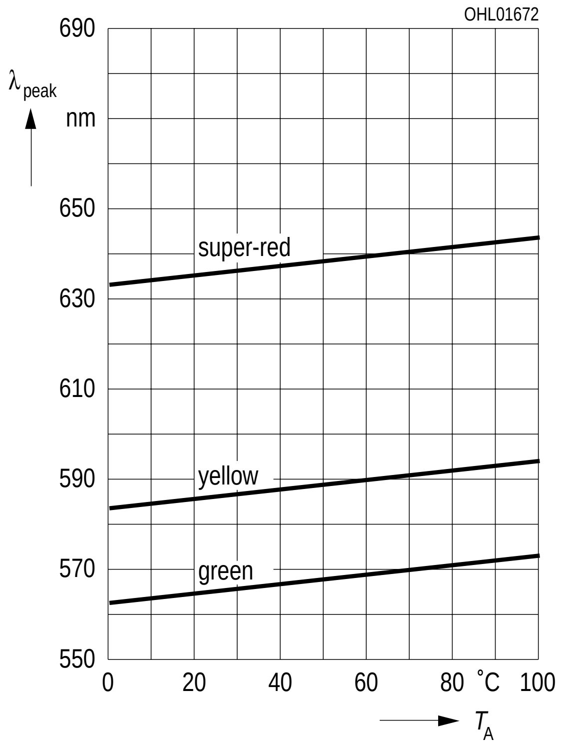
Zulässige Impulsbelastbarkeit $I_F = f(t_P)$
Permissible pulse handling capability
Duty cycle D = parameter, T_A = 25 °C



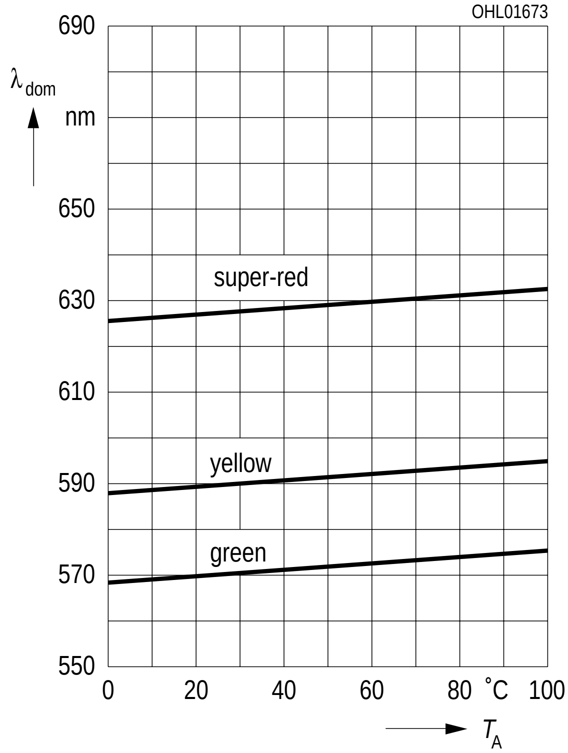
Maximal zulässiger Durchlaßstrom
Max. permissible forward current
$I_F = f(T_A)$



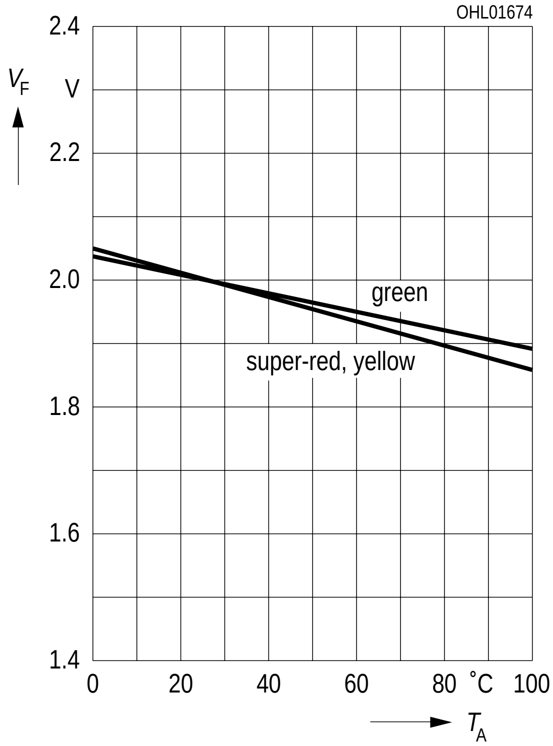
Wellenlänge der Strahlung $\lambda_{peak} = f(T_A)$
Wavelength at peak emission
I_F = 20 mA



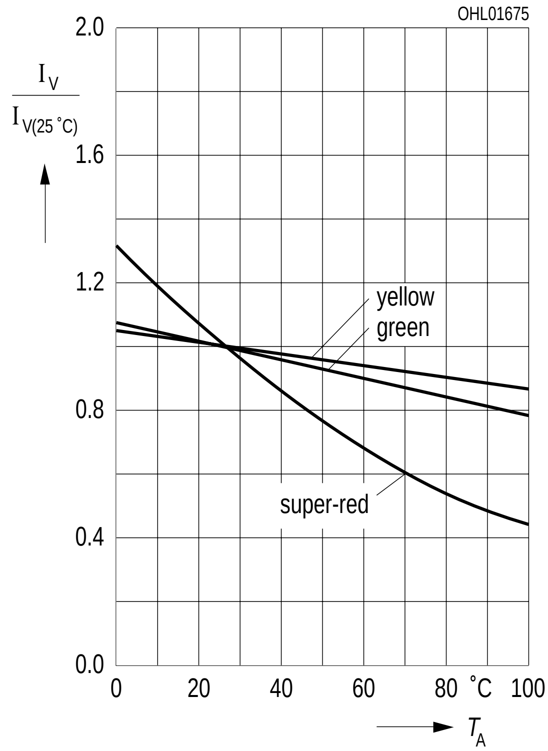
Dominantwellenlänge $\lambda_{dom} = f(T_A)$
Dominant wavelength
I_F = 20 mA



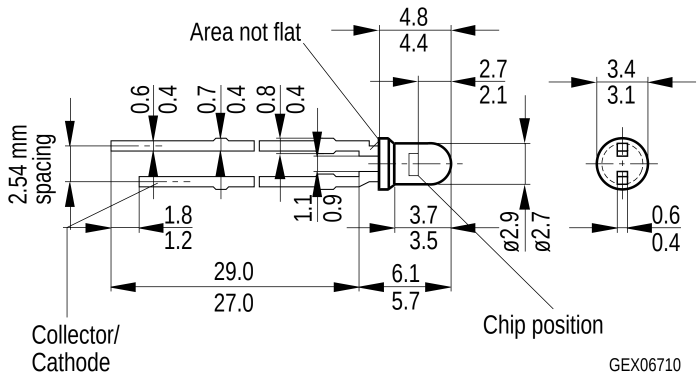
Durchlaßspannung $V_F = f(T_A)$
Forward voltage
I_F = 10 mA



Relative Lichtstärke $I_V/I_{V(25\,°C)} = f(T_A)$
Relative luminous intensity
I_F = 10 mA



Maßzeichnung (Maße in mm, wenn nicht anders angegeben)
Package Outlines (Dimensions in mm, unless otherwise specified)



Kathodenkennzeichnung: Kürzerer Lötspieß
Cathode mark: Short solder lead